DED technology:
Cooperation between MT Aerospace and BeAM

Augsburg/Strasbourg – March 10th, 2020 - MT Aerospace AG is relying on a machine from BeAM to help build up its Additive Manufacturing business segment.

MT Aerospace AG has decided to enter the Directed Energy Deposition (DED) technology. Negotiations with the Strasbourg-based company BeAM were already at an advanced stage and an agreement was reached on an extensive cooperation.

Strategic goal of MT Aerospace AG's is to establish a European competence center for the manufacturing of large structures using additive manufacturing. In addition to applying the DED technology to the products of MT Aerospace and companies affiliated to the OHB Group, it is also planned to emerge as a service provider with the support of BeAM. **MT Aerospace aims to become a leading manufacturer of high-quality DED parts.**

The **BeAM Modulo 400 machine** was chosen to step into the blow-powder deposition. The aim is to qualify this technology with different materials as well as the entire process chain - from data preparation to finishing and certification of components for use in the aerospace industry.

“We are very pleased to establish such a partnership with MT Aerospace, a leading industrial company in the aerospace market. It highlights the potential of DED to manufacture large structures with economic gains as well as the capacities of our machines. It is an important step for BeAM in our journey to **industrialize additive manufacturing** and I would like to thank MT Aerospace for making it happen.” explains Vincent GILLET, CEO of BeAM.

Advantages of DED

MT Aerospace company is particularly interested in the possibility of using a controlled atmosphere to build up reactive materials such as titanium alloys. For this purpose, the machine has a sealed internal enclosure with antechamber.

Preliminary tests at MT Aerospace show that BeAM's technology enables one of the best deposition qualities and surfaces in the DED market.

The Modulo 400 will be used to qualify initial materials and medium-sized parts. The BeAM DED technology is based on a blow-powder laser metal deposition technology, which has been proven for many years. The simultaneous 5-axis machines from BeAM operate with a Sinumerik control from Siemens and make it possible to print thin-walled geometries - without support structures.

In addition, metals can be processed using the sandwich method. This means that a hard, wear-resistant material can be applied to a tough, soft one in order to achieve the best material properties. Graded materials can also be built up in the future.

The possibility to build parts completely in near-net-shape, to weld partial structures on halflings as well as to produce repair and coating in investment fine casting quality make the DED technology unique, according to BeAM.

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Our advanced structural components and tanks are used successfully in the European launcher system ARIANE, in spacecraft, satellites and in the fleets of Airbus & Boeing, among others. Our relentless drive for improvement is also applied in the development of pioneering micro launch vehicles in our Rocket Factory.

More information: www.mt-aerospace.de.

--- **BeAM**, created in December 2012, is a pioneer in designing and producing industrial metal additive manufacturing machines using the DED technology (Directed Energy Deposition). BeAM works closely with its customers and business partners to develop and industrialize manufacturing

and repair processes with feasibility assessments, pilot production, sales of systems, training and technical support. BeAM is headquartered in Strasbourg, France and has two Solutions Centers, one in Cincinnati, Ohio and one in Singapore. This global presence of engineers trained by BeAM contributes to accelerating the adoption of its innovative technology, while offering engineering services for local industrial companies.

In June 2018, BeAM joined the AddUp Group, a manufacturer of 3D printing machines and production lines based in Clermont-Ferrand. AddUp is a joint-venture between Fives and Michelin, which employs more than 380 people.

More information: www.beam-machines.com.